



HOME ZONE CHARACTERISTICS FOR NEW HOUSING DEVELOPMENTS

Guidance for developers



February 2002

WHAT IS A HOME ZONE?

A home zone is a street or group of streets that is designed to prioritise its social and environmental functions (i.e. a space for the residents of the street) over its highway function (i.e. a space for people moving along it).

The movement of motor vehicles is not normally banned or restricted in home zones. However the design should give a clear message to drivers that they are to drive slowly, carefully, and with respect for people for those on the street who are not driving – including children at play.

The Government has decided that it does intend to draw up regulations (as provided for under the Transport Act 2000) allowing Home Zones to be governed by “Use Orders” (these would explicitly permit activities other than “passing and repassing” along the public highway) and “Speed Orders” (which would permit local authorities to design home zones for speeds lower than 20mph – although actual speed limits lower than 20mph than would still require special authorisation).

Given the absence of any distinct home zone regulations the term “home zone” effectively refers to a design concept only, not a change of regulatory status. However a 20 mph speed limit may be introduced in a home zone using the existing regulations governing 20mph zones or speed limits, and the design of the scheme would need to comply with those regulations.

This guidance note has been prepared by Oxfordshire County Council in consultation with Cherwell District Council, Oxford City Council, South Oxfordshire District Council, Vale of the White Horse District Council, West Oxfordshire District Council and the Oxfordshire Transport Forum.

The purpose of these guidelines is to indicate to developers what the County Council considers to be necessary and desirable for any new development to be called a ‘Home Zone’. The guidelines should be used in conjunction with the draft Design Guide for Residential Streets. Early discussion with the planning and highways authorities on the details of any proposed home zone is considered essential.



OBJECTIVES AND CRITERIA FOR HOME ZONE DESIGN

The following sections define a number of design objectives that should be taken into account in the planning and design of new housing developments where home zone characteristics are required. In some paragraphs, quantified criteria are also stipulated – these are prefixed by a “HZ” number and written in italic typescript.

However, if there is one single overarching principle of home zone design, it is the need for creativity and individuality. These guidelines are deliberately drafted in loose terms, in order to encourage flexibility and innovation. Indeed they will have failed in their purpose if the criteria result in creativity or innovation being stifled. If home zone planners or designers have novel ideas which accord with the spirit but not the letter of this guidance, then those ideas should not be discarded but should be discussed with County and District Council officers, to ascertain whether or not they are likely to be acceptable.


A useful source of information on home zone design can be found on the home zone website at www.homezonenews.org.uk/. This details the present national pilot home zones, providing information on what and what does not work and may in the future focus on subsequent zones.

Conversely, the criteria will also have failed if they are used as a formula to be followed, leading to “off the peg” solutions.

Home zones should, above all, have a strong sense of individual local identity.

Over time as home zones are built and developed, this guidance will be updated and refined. It is hoped that in future editions, photographs will be available to include illustrating aspects and features of home zones as they are built.





A – Home zones should be wholly or primarily residential in character

Home zones should generally include residential uses only. Connectivity and permeability are important features within the Home Zone area, particularly for pedestrians and cyclists. On a grid of streets traffic is more evenly dispersed, so that the environmental impacts of vehicles are not concentrated on a few routes. They are appropriate in all predominately residential areas, from urban terraced streets to more suburban-type housing, and enable more dense urban developments to be created.

In some cases, local schools and neighbourhood shops may also be included (e.g. where one or more home zones are included within a larger development); however these should be of small scale, intended primarily or solely for use by residents of the home zone development itself.

It is possible that, as the home zone concept becomes more familiar, the approach may later be applied also to local shopping centres etc.



B – Plan for low traffic volumes, without through traffic

The planning and design of home zones needs to strike a balance between the desirability of permeable street layouts, whilst discouraging through traffic. This limits the desirable size of a single home zone, although a “home zone development” may consist of several individual “home zones” close to a bus-accessible route – the latter should have a 20mph speed limit. However, the bus routes should not pass through the home zones themselves.

Small culs-de-sac are suitable as Home Zones, but layouts that are not well connected should be discouraged. Home Zones offer a real alternative to the attractions of living in a cul-de-sac, as the streets are quieter and safer through slower traffic speeds, and there is a stronger sense of local ownership of each street. If Home Zones are going to be introduced into a cul-de-sac, then there should be adequate room for turning movements.

Similarly, formal one-way streets should be avoided as these can contribute to a feeling that drivers can travel faster. Rather the design should aim to provide a single track available for movement in both directions, with sufficient locations provided for vehicles to pass each other.

HZ1 – Home zones should be designed for a normal peak flow in the region of 100 vehicles per hour.

HZ2 – The length of individual streets in home zones should be up to 400m if there is access at both ends, or up to 200m if the street is a cul-de-sac



C – Achieve attractive, high density layouts

Home zone design principles present opportunities to combine high quality residential environments with relatively high housing densities, thus contributing to the wider objective of environmentally and socially sustainable communities.

Higher densities can be achieved (along with other home zone objectives) by providing a significant proportion of the car parking on-street or in communal areas (thus using space more efficiently than the provision of private garages and drives), and/or by designing streets to feel like a communal outdoor space (thus reducing the need for front gardens as “buffer-zones” between the home and the street).

HZ3 – The appropriate density for any development will need to be agreed with the local planning authority. Densities in Home Zones are likely to be higher than those in non ‘Home Zone’ developments due to the layout of the development. For locations in town centres and in developments with high levels of accessibility by non-car modes, it would be expected that car parking provision would be low compared to a similarly located non ‘Home Zone’.



D – Achieve very low vehicle speeds by design

The design of home zones should not rely on just pure engineering measures. They should give a clear message to drivers that they should drive slowly, carefully, and with respect for people on the street who are not driving – particularly children at play. All aspects of the home zone design should contribute to this objective, including:

- * Variety in the heights and/or design of buildings;
- * Variety in the positioning of the building line;
- * Variations and deviations in the width and alignment of the vehicle path, through the positioning of car parking spaces, trees and street furniture (e.g. benches, planters)
- * Variety in the design of the paved surface (e.g. through different colours and textures of surface materials).

Home zones should have a design speed of 10mph, achieved through the physical design of the road, not just through the imposition of a speed limit. Indeed, if a home zone is designed properly, a low speed limit should not be necessary to achieve low vehicle speeds.

The creation of a deviating vehicle path is generally the most effective means of controlling speeds. Deviations in the vehicle path should be tight enough so that drivers do not regard them as an invitation to test out their “racing driver” skills. However care should be taken to ensure that they are still accessible and usable by emergency and service vehicles and that property frontages and areas for communal activity are protected.

Whilst a level carriageway surface is generally preferred in home zones, vertical deflections (e.g. flat-topped road humps, speed tables, speed cushions, etc) may also be considered, although usually only as gateway features.

HZ4 – Speed reducing features should be provided to achieve a design speed of 10 mph.



E – Provide access for service and emergency vehicles

Lower than normal widths for the vehicle pathway are encouraged in home zone design, since these help to encourage “neighbourhood-friendly” driver behaviour, as well as enabling higher settlement densities. However, the width and alignment of the vehicle path must also take account of the needs for cornering, turning and parking movements, and for access by emergency and service vehicles (e.g. refuse lorries).

HZ5 – The minimum width of the vehicle pathway should be not less than 3 metres at any point. Opportunities for two vehicles to pass one another should be provided at least every 50m and a swept path analysis should be provided to prove that there is sufficient breadth for the swept path.



F – Avoid a rigid distinction of footway and carriageway

In apportioning space for pedestrian and vehicle movement, a balance needs to be struck between two general aims. On the one hand, the whole space between the houses (including the vehicle path) should be, look and feel like a space where pedestrian and other non-motorised activity is permitted and encouraged – hence the vehicle pathway should not give the impression of being a space primarily intended for vehicle movement. On the other hand, some pedestrians value a measure of protection from motor vehicles – this is particularly true for those with sensory or mobility disabilities.

With the first of these aims in mind, a single level surface (i.e. without height difference between carriageway and footway) is generally preferred. Where this approach is employed, suitably placed bollards, planting, car parking bays or other features may be used to provide an appropriate degree of pedestrian protection (at the same time, they will also contribute to achieving low vehicle speeds). Textual and tonal contrasts may be used to distinguish pedestrian and vehicle space, and the latter may be punctuated at regular intervals by indicating “crossings” in the colour of the pedestrian space.

In certain circumstances an alternative approach would be to provide a split level surface with kerbs, punctuated with raised footway-level crossing points (these also act as a traffic calming feature, and should generally be highlighted by means of textual and tonal contrast).

The apportioning of pedestrian and vehicle space should also take account of the need to ensure that motor vehicles do not drive too close to property frontages and to provide satisfactory drainage arrangements.

HZ6 – There should not normally be a height difference between carriageway and footway space.

HZ7 – Where distinct footway space is provided, this should have a normal minimum width of 1.5m, with an absolute minimum width of 1.0m for very short lengths only (which should have a clear line of vision from one end to the other).



G – Promote communal use of street space through visually attractive street design

Provision of features such as seating areas, trees/planting, street art/sculpture, on-street car parking spaces and cycle parking stands can promote communal use of the street space, particularly for informal and imaginative play. Such elements should be designed and placed within the street environment in ways which enhance its visual quality as well as promoting the traffic calming objective. Designs should incorporate well thought out cycling and walking links (to e.g. schools, green spaces, railway stations or bus routes) so that the home zone is accessible, rather than closed off.

In conventional housing developments, private enclosed front gardens are often used as a buffer zone between the street and the home. In a home zone, front gardens can be minimal (e.g. 0.5 – 1m deep), as the quality of the street should reduce the need for a 'buffer zone'. Where front gardens are larger than about 6m in depth on each side of the street, the benefits of the Home Zone design will be less significant as the gardens will already provide a large 'buffer' to the street with space to play and interact with neighbours.





H – Street planting

Whilst planting and/ or hard landscaping features can help other traffic calming objectives by restricting the visual width of the carriageway (and/or helping to create a deviating vehicle path), care should be taken to ensure that they do not unduly obstruct driver's forward visibility of all road users, particularly children and animals. The effect of introducing these features in the street will be to shorten a driver's sight line. In so doing, the driver will be far more focused on his or her immediate surroundings. Drivers need to be able to brake within the distance provided by this sight line. It is important, therefore, that visibility is designed in such a way that it reinforces the desired low speed of vehicles within the zone.

HZ8 – The height and positioning of planting within or immediately adjacent to the carriageway should provide forward visibility consistent with a design speed of 10mph.



I – Children’s play areas and other communal activity

As with pedestrian space designs need to achieve a balance between the need to provide appropriate protection for areas intended for children’s play and other communal activities, without appearing to confine these activities to their designated areas. One approach is to use fencing around play areas, which will deter the youngest children from running unexpectedly into the paths of vehicles, without unnecessarily hemming in those children who are old enough to have gained a measure of road sense. It is recommended that bollards be used to mark certain play features associated with the Home Zone, such as hop-scotch markings on the road surface, so that vehicles do not park over them. Other approaches can involve appropriately sited bollards or seating. Advice should be sought from ROSPA as to the right level and means of providing such protection.

Whilst young children often enjoy quite small items of play equipment, older children should also have larger spaces available. Older children’s play tends to make more noise, hence their play areas needs to be more carefully sited to avoid undue disturbance to other residents’ homes.

For older groups, adolescents and young adults, consideration should be given in the design of the home zone to incorporating features such as youth shelters where youths can sit and talk and other areas where people can go to meet and play games.

The needs of all the residents need to be covered. Schemes should include ways in which both formal and informal activities can be catered for in public areas. Also, it is important that account is taken of the maintenance and liability issues, as set out in Section O.





J – Parking space

Car parking in the Home Zone can be provided in a number of ways, some off-street and some on street, with the majority located off-street behind the line of the frontages of the houses, but

the home zone as a whole should discourage the parking of cars other than in designated parking spaces. The level of parking provision should generally be at the lower end of the range appropriate for the type and location of the development concerned.

Car parking spaces should be clearly identifiable, by means of surface colour and/or tonal differences, incorporating a “P” symbol within the surface design, or some other form of clear visual differentiation. The design of the home zone should discourage parking elsewhere within the development. In areas close to town centres, residents’ parking schemes should also be considered.

If off street parking is to be provided, either by providing garages or driveways, then the layout of the street should discourage the use of the roadway as additional parking area. The need for service and visitor parking in these areas should also be taken into account in the design.



K – Catering for the needs of people with disabilities

The design of the scheme must pay full attention to the contents of the Disability Discrimination Act, in order that a home zone is fully accessible and in no way hinders disabled pedestrians and residents.

The low vehicle speeds and volumes in home zones are a general benefit for people with sensory or mobility difficulties. The provision of single-level surfaces – or alternatively, frequent footway-level crossing points – can particularly benefit people with mobility difficulties including wheelchair users, as well as those with prams etc. Care should be taken in the siting of street furniture and other features to provide sufficient space to permit through passage for all people including wheelchair users etc. Moreover, uneven surfaces such as cobbles should be avoided on surfaces for walking, where they could present difficulties for wheelchair users and/or cause trip hazards for those on foot.

Shared surfaces can present problems to people with sight difficulties. Where there is neither a height difference nor any bollards, planters or other objects which would indicate the limits of exclusively pedestrian space to a blind person, then thought should be given to some alternative means of indication. Ways of achieving this could include differences of surface texture, which are detectable by cane users, and/or dished drainage channels at the edge of the area intended for vehicles.

Care should also taken to provide high levels of colour and tonal contrast to assist partially sighted people to see small vertical features such as bollards and low fence posts – these should generally be white banded at the top and bottom. Where signage is installed, they should not be higher than 2m. Well-chosen tonal and colour contrasts in surface colouring can also assist partially sighted people to navigate the street. Street nameplates should be embossed or tactile so that they can be understood by touch reading.



L – Entrance/exit points should be clearly marked

There is at present no regulation sign denoting a home zone. However, there are several ways in which the signing of a home zone can be provided within the current regulations:

- * The junctions at the entrance of the home zone may be named “[xxx] home zone”, and the regulations for naming and signing of junctions used to erect signs;
- * A non-statutory sign can be erected – however this must not be mounted on a pole which is provided solely for the purpose of displaying the non-statutory sign if the pole is located within the highway or anywhere else where it may cause an obstruction;
- * Application may be made to the DTLR for site-specific approval for an attractively designed sign giving the name of the home zone.

The entrance(s) to a home zone should involve vehicles crossing a footway space. This can be achieved by extending the footway across the entrance of the side-road turning into the home zone. This may involve the provision of a ramp to allow vehicles to cross the footway extension. Rumble devices immediately within the home zone may also be provided (subject to noise considerations) to reinforce the impression of entering a low speed area.

Entrances to home zones should be wide enough to avoid conflicts between entering and exiting traffic, but should have small radii to ensure that vehicle speeds are already slow on entering the zone, and to give priority to pedestrians crossing the home zone entrance.

HZ9 – The entrance and exit points of home zones should be clearly marked by signing and physical design features.





M – Road Junctions

The design of road junctions within a home zone should avoid giving the impression of higher and lower priority roads. Possible solutions could include:

- * Raised table junctions;
- * junctions without road markings;
- * “Squareabouts” (a variant of a crossroads where all arms of the junction are slightly staggered, such that a “straight-on movement involves turning right and immediately left – each arm of the “squareabout” has “give way” markings).

Off-carriageway shared pedestrian/cycle routes will generally not be necessary given the low vehicle speeds, hence these should generally not be provided within home zones.



N – Street Lighting & Drainage Considerations

Lighting should generally be of a standard appropriate for residential areas. The location of street lighting columns should be such that all unusual aspects of road layout (narrowings, deflections, chicanes etc) are clearly illuminated. The colouring of lighting columns should accord with what is laid out in section K.

Where buildings are situated at the edge of the home zone the provision of lighting on the buildings, rather than on columns would assist in reducing street clutter.

Energy-efficient lighting is recommended.

Drainage arrangements should accord with requirement HZ6.

In the absence of kerbing and its adjacent gully and drainage system, it is recommended that a central drainage line be used, with the surface very gently sloping into it. Also, porous drainage systems should be considered in appropriate locations.



O – Make suitable arrangements for maintenance responsibilities and liabilities

It is vital to the long term success of the home zone that arrangements are made for the maintenance of (and liabilities arising from failings in the placement and/or maintenance of) any planting and street furniture which is not related to the highway functions of the street. The County Council as highway authority is not able to accept maintenance and/or liability responsibilities relating to play equipment and other street furniture which is not related to its highway functions (in this respect, a home zone is not different from any other type of development). Hence the arrangement normally preferred for spaces allocated to such furniture will be to designate them as play areas or open spaces.

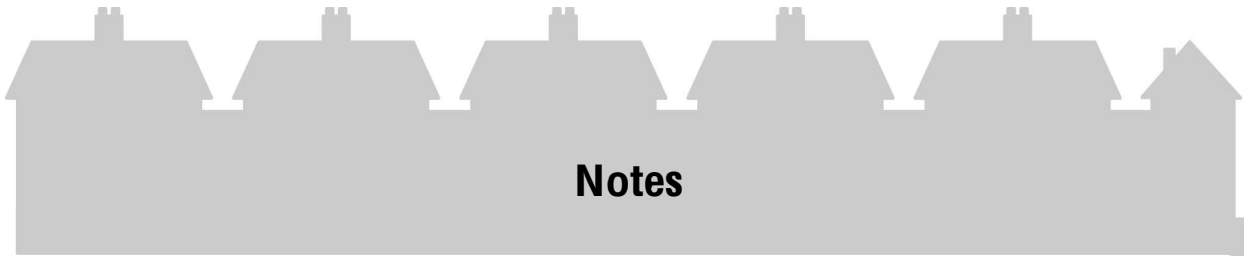
It is recommended the developers make it an early priority to establish a management company which can assist in managing the scheme's future, safeguarding its benefits and assuming a measure of financial responsibility for the upkeep of particular features.

If no management company is to be set up, the developer must ensure that there is agreement with the County, District, Town and Parish Councils as to:

- * which authority (County, District or Town/Parish Council) is best able in practice to take day-to-day responsibility for each element of planting and/or non-highway-related furniture;
- * what contributions are appropriate from developers to provide for the future maintenance responsibilities and liabilities arising from such planting and/or furniture; and
- * the apportionment of these contributions among the authorities concerned in the light of the apportioned responsibilities/liabilities.

If no agreement is reached, then no such features may be included within the home zone.





Notes





HOME ZONES CRITERIA

- HZ1 Home Zones should be designed for a normal peak flow in the region of 100 vehicles per hour.
- HZ2 The length of individual streets in home zones should be up to 400m if there is access at both ends, or between 200m if the street is a cul-de-sac.
- HZ3 The appropriate density for any development will need to be agreed with the local planning authority and be in accordance with the relevant Local Plan. Densities in Home Zones are likely to be higher than those in non-'Home Zone' developments due to the layout of the development. For locations in town centres and in developments with high levels of accessibility by non-car modes, it would be expected that car parking provision would be low compared to a similarly located non-'Home Zone'
- HZ4 Speed reducing features should be provided to achieve a design speed of 10 mph.
- HZ5 The minimum width of the vehicle pathway should be not less than 3 metres at any point. Opportunities for two vehicles to pass one another should be provided at least every 50m and a swept path analysis should be provided to prove that there is sufficient breadth for the swept path.
- HZ6 There should not normally be a height difference between the carriageway and footway space.
- HZ7 Where distinct footway space is provided, this should have a normal minimum width of 1.5m, with an absolute minimum width of 1.0m for very short lengths only (which should have a clear line of vision from one end to the other).
- HZ8 The height and positioning of planting within or immediately adjacent to the carriageway should provide forward visibility consistent with a design speed of 10mph.
- HZ9 The entrance and exit points of home zones should be clearly marked by signing and physical design features.



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